

Amendments to the Drawings:

No amendments are made to the Drawings herein.

REMARKS

By the foregoing Amendment, Claim 1 is amended and additional Claims 15-21 are presented. Entry of the Amendment, and favorable consideration thereof, is earnestly requested.

The Examiner has indicated that Claims 3-6 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Allowable Claims 3-6 have been rewritten as Claims 15-18 and allowable Claims 8-10 have been rewritten as Claims 19-21.

Claims 1-2, 7, and 11-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Huttlin (U.S. Patent No. 5,145,650) in view of Huttlin (U.S. Patent No. 6,367,165) and Gribanov et al. (RU 2151988 C1), and in some cases, further in view of Engstrom et al. (U.S. Patent No. 5,093,085). Applicant respectfully asks the Examiner to reconsider these rejections in view of the above Amendments and the below Remarks.

In the present invention, as claimed, there are three different movements of the particulate material within the elongated tunnel-like process chamber of the invention. Two flows are oriented transversely with respect to the longitudinal direction of the process chamber, which two flows are oriented oppositely towards each other. The two oppositely oriented flows impinge one another along the center breaking-up zone.

Claim 1 has been amended to highlight the fact that, for achieving these two flows, the bottom of the process chamber has overlapping horizontal guide

plates forming slots therebetween. The horizontal overlapping guide plates are superimposed in such pattern that the two opposite flows result.

Claim 1 has also been amended to highlight the fact that a third flow is provided for moving the particulate material in the longitudinal direction from the inlet to the outlet during the treatment. For achieving this movement, air guide elements are arranged in the bottom, and that these air guide elements are connected to an adjustment device for adjusting these air guide elements for superimposing a variable movement component in said longitudinal direction on the entering process air. If the air guide elements are adjusted as shown in Fig. 5 of the application, only the two opposite flows are generated. When adjusting to a position as shown in Fig. 6, a movement component in the longitudinal direction (arrow 76) is superimposed. Claim 1 has been amended to highlight that it this variable movement component of the process air serves for adjusting a longitudinal advance movement of the material passing the process chamber from the inlet to the outlet.

Huttlin ('650) discloses an apparatus being subdivided into six process chambers 12 disposed one behind the other. Each of the process chambers has a pot-like structure and serves for treating a particular material therein. After the treatment is finished within the six individual chambers, the bottoms of the six chambers open, and the treated material falls onto a belt 30 arranged below the six chambers.

This means, in Huttlin ('650), that there is no movement in the longitudinal direction during the treatment. This movement occurs after the treatment is finished. Additionally, the plates designing the bottom in Huttlin ('650) are not horizontal.

Huttlin ('165) discloses a process chamber which is not elongated, but rather is circular. Within this circular process chamber, two opposite flows are generated, with the aim to have these two opposite flows impinging one another along a diameter of the circular bottom.

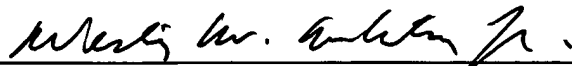
Huttlin ('165) does not disclose, teach or suggest in any way an elongated, tunnel-like process chamber, and, therefore, there is no need in Huttlin ('165) to provide a longitudinal movement which is transverse to the two opposite flows.

Gribanov et al. discloses inclined fire grate bars having a wave-like configuration (and not horizontal plates) which are overlapping one another. These bars serve to guide a coarse material, like cement, lime etc., from a higher level to a lower level. Movable flaps are arranged between these fire bars for directing the coarse material moving from the upper level to a lower level. No elongated, tunnel-like process chamber having the three different movements as described above is shown by Gribanov et al.

Moreover, Applicant respectfully submits that no combination of the cited references would arrive at the present invention. As discussed above, Huttlin ('650), the main reference cited by the Examiner does not disclose, teach or suggest a number of the requirements of Claim 1, as amended. Moreover, as discussed above, there is absolutely nothing in any of the other cited references which would motivate one skilled in the art to make the modifications to Huttlin ('650) necessary to arrive at the claimed invention. As such, Applicant respectfully submits that the present invention, as claimed, would not have been obvious to one having ordinary skill in the art in view of the cited prior art, either when taken alone or when taken in combination.

For the foregoing reasons, Applicant respectfully submits that all pending claims, namely Claims 1-21, are patentable over the references of record, and earnestly solicits allowance of the same.

Respectfully submitted,



Wesley W. Whitmyer, Jr., Reg. No. 33,558
Todd M. Oberdick, Reg. No. 44,268
ST. ONGE STEWARD JOHNSTON & REENS LLC
986 Bedford Street
Stamford, Connecticut 06905-5619
(203) 324-6155
Attorneys for Applicant